

REMARKS

The Specification has been amended. Claims 1, 4, 6 - 7, 11 - 12, and 19 have been amended to place the claims in better form for allowance. No new matter has been introduced with these amendments, all of which are supported in the application as originally filed. Claim 5 has been cancelled from the application without prejudice (and Claims 2 - 3, 8 - 10, and 13 - 18 were previously cancelled from the application without prejudice). Claims 1, 4, 6 - 7, 11 - 12, and 19 remain in the application.

Applicants are not conceding that the subject matter encompassed by the claims as presented prior to this Amendment is not patentable over the art cited by the Examiner, and claim amendments and cancellations in the present application are directed toward facilitating expeditious prosecution of the application and allowance of the currently-presented claims at an early date. Applicants respectfully reserve the right to pursue claims, including the subject matter encompassed by the claims as presented prior to this Amendment and additional claims, in one or more continuing applications.

I. Objection to the Specification

Paragraph 3 of the Office Action dated March 11, 2010 (hereinafter, "the Office Action") states that the specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. In particular, the phrase "computer useable medium" in Claim 19 is noted. Applicants respectfully traverse this objection.

The claims are a part of the specification, and therefore of the disclosure. See *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 42 USPQ2d 1737, 1741 (Fed. Cir. 1997), stating “The specification, of which the claims are part, ...”. An originally-filed claim “can provide the requisite written description to satisfy section 112”, according to *Union Oil Co.*, 208 F.3d at 998 n.4. In *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 70 USPQ2d 1321, 1325-26 (Fed. Cir. 2004), the Court of Appeals for the Federal Circuit stated “... a patent disclosure need not enable information within the knowledge of an ordinarily skilled artisan. Thus, a patentee preferably omits from the disclosure any routine technology that is well known at the time of application.”, citing *Hybritech*, 802 F.2d at 1384. *In re Howarth*, 654 F.2d 103, 210 USPQ 689, 692 (C.C.P.A. 1981), stated “It is well settled that the disclosure of an application embraces not only what is expressly set forth in words or drawings, but what would be understood by persons skilled in the art.”. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90, 96 (C.C.P.A. 1976), stated “It is not necessary that the application describe the claim limitations exactly, ... but only so clearly that persons of ordinary skill in the art will recognize from the disclosure that appellants invented processes including those limitations.”.

Page 5, lines 8 - 16 of the instant Specification discuss embodiments of the present invention, stating that a “typical combination” of hardware and software is a general-purpose computer system using a computer program, and further stating that

The software may be pre-loaded into the general-purpose computer system or may be separately available as a computer program product [to be] loaded into a computer system ... (emphasis added)

Applicants respectfully submit that it is clear that the above-described “loading” is from a

computer-useable media. Page 5, line 24 - Page 6, line 6 of the instant Specification discuss various types of computer useable media on which an embodiment of the present invention might be provided, as well as components capable of using the media, stating

... When the invention is implemented as a [computer] program product, it is typically made available to the network operator initially on removeable magnetic or optical media for installation onto hard drive 38. ... the program can be transferred into random access memory 36 as needed from hard drive 38. Alternatively, the program may be loaded into random access memory 36 directly from an optical media mounted in optical drive 40. (emphasis added)

Accordingly, the Specification discloses at least the above-underlined examples of computer useable media. See also the corresponding components illustrated in **Fig. 2**. Therefore, the Specification discloses computer useable medium on (at least) Page 5, lines 8 - 16; Page 5, line 24 - Page 6, line 6; in **Fig. 2**; and according to *Eastman Kodak*, also discloses “An article of manufacture comprising a computer useable medium having a computer readable program embodied [therein] ...” by virtue of Claim 19. Thus Claim 19, as originally-filed in the instant application, is sufficient to provide a written description of, and antecedent basis for, the requisite “computer” terms according to *Union Oil*. One of skill in the art readily understands the references to various types of computer useable storage media set out on Page 5, line 24 - Page 6, line 6 and the implied references to computer useable storage media discussed on Page 5, lines 8 - 16, and therefore the disclosure need not provide further enabling information on this topic according to *Chiron Corp.* Furthermore, because persons skilled in the art understand this, the disclosure of the application embraces the computer useable storage medium, according to *In re Howarth* and it is not necessary that the application describe “computer useable storage medium” exactly, according to *In re Wertheim*.

In view of the above, the Examiner is respectfully requested to withdraw the objection to the specification.

II. Rejection under 35 U. S. C. §101

Paragraph 4 of the Office Action states that Claim 19 is rejected under 35 U. S. C. §101 because the claimed invention is directed to non-statutory subject matter. More particularly, Paragraph 4 discusses “computer usable medium” and “computer readable medium”, stating that such medium

typically covers forms of non-transitory tangible media and transitory propagating signals per se in view of the ordinary and customary meaning of computer readable media.

In the interest of progressing rapidly to issuance, Applicants have amended Claim 19 herein to recite “storage” in the claim preamble, and respectfully submit that this addresses the concerns raised in Paragraph 4 of the Office Action. The Examiner is therefore respectfully requested to withdraw the §101 rejection.

III. Rejections under 35 U. S. C. §103(a)

Paragraph 5 of the Office Action states that Claims 1, 4 - 5, 7, 11 - 12, and 19 are rejected under 35 U. S. C. §103(a) as being unpatentable over Brichta (U. S. Patent 5,864,483) in view of Engel (U. S. Patent 5,615,323) in further view of Sweet (U. S. Patent 6,836,800). Paragraph 13 of the Office Action states that Claim 6 is rejected under 35 U. S. C. §103(a) as being unpatentable over Brichta and Engel in view of Sweet in further view of Baumann et al. (U. S.

Patent 5,469,148, hereinafter, “Baumann”). Claim 5 has been cancelled from the application without prejudice, rendering the rejection thereof moot. These rejections are respectfully traversed with regard to the remaining claims as currently presented.

Referring first to independent Claim 1, Applicants have amended the preamble to further recite “in order to generate anticipatory alerts” (Claim 1, lines 2 - 3). This is supported in the Specification on Page 6, line 24 - Page 7, line 2.

Applicants have also amended Claim 1 herein to clarify that the “analyzing” claim element recited on lines 8 - 11 is determining whether the analyzed set of samples satisfies predetermined reliability criteria. This is discussed in the Specification on Page 8, line 23 - Page 9, line 11. This claim element explicitly recites that the predetermined reliability criteria “requir[es] a predetermined, minimum number of samples in the set” (Claim 1, lines 9 - 11).

Applicants have amended the claim element recited on lines 12 - 14 of Claim 1 to clarify that the set of samples is used in the linear regression [only] if the reliability criteria are met. This is discussed in the Specification on Page 8, line 23 - Page 9, line 3, which notes that if the reliability tests are not met, then “the set [of samples] is ignored, at least for trend determination purposes”.

With regard to the “determining a [predicted] performance violation time ...” claim element recited on lines 15 - 17 of Claim 1, Applicants have clarified this claim element to recite

that the “performance violation time” is a predicted time. This is discussed in the Specification on Page 8, lines 3 - 7, referred to a predicted time t(v).

Applicants have also amended Claim 1 to include claim language adapted from now-cancelled Claim 5. See the “generating an anticipatory alert ...” claim element now recited on lines 18 - 19 of Claim 1. As noted above, anticipatory alerts are discussed in the Specification on Page 6, line 24 - Page 7, line 2.

Referring now to the Office Action analysis of the “generating an [anticipatory] alert ...” claim element which is adapted from now-cancelled Claim 5 and is now recited on lines 18 - 19 of Claim 1, Paragraph 8 of the Office Action cites Brichta as disclosing the claim language of Claim 5 as previously presented, referring in particular to col. 1, lines 61 - 64; col. 9, lines 11 - 15; col. 5, line 64 - col. 6, line 14; and col. 7, lines 38 - 49. Applicants respectfully submit that Brichta does not disclose the claim element currently recited on lines 18 - 19 of Claim 1, as will now be discussed.

Applicants find no teaching or suggestion in Brichta of the “falls within a predetermined time window that begins at a current time” claim language as recited on lines 18 - 19 (emphasis added) of Claim 1.¹ As discussed in Applicants’ Specification, such time window is used to avoid sending anticipatory alerts when a predicted performance violation is too far in advance – when the predicted violation is outside the predetermined time window – because it is possible that the

¹ Applicants also find no teaching or suggestion of this claim language in Engel.

performance problems will correct themselves before an actual violation occurs. See Page 8, lines 8 - 16 of the Specification, where this is discussed, noting that “For an alert to be of interest to a system provider, it must be reasonably imminent.” – that is, it must fall within the predetermined time window, which begins at the current time. Applicants’ Specification uses an example where the time window is 48 hours from the current time: if the predicted violation occurs more than 48 hours in advance, then (using this example time window) an alert will not be generated (i.e., because the potential violation is not “reasonably imminent”). See Page 12, lines 16 - 23, where this scenario that uses a 48-hour time window is discussed.

In sharp contrast, the text of Brichta which was cited in the Office Action with regard to Claim 5 pertains to individual measured values (i.e., “occurrences” that reflect already-detected measurements) that go into a “danger zone” – i.e., they approach a level of too-far-from-normal. This is not the same as the time window recited in Claim 1, where an anticipatory alert is generated if a predicted performance violation time (i.e., the time at which a performance violation is predicted to occur; see the antecedent on lines 15 - 17 of Claim 1) falls within a predetermined time window that begins at a current time. Because this window begins at the current time, it is a future time period and is necessarily distinct from the already-completed measurements from which Brichta’s “occurrences” are generated.

More particularly, the cited text of Brichta discusses:

- services or products may approach unacceptable levels (col. 1, lines 61 - 64);
- identifying trends in the patterns of occurrences that fall in a danger zone (col. 9,

lines 11 - 15), where “danger zone can be defined as a region that is at least a predetermined number of standard deviations away from the statistical mean ...” (col. 7, lines 51 - 54). Clearly, measuring whether something falls within some number of standard deviations of a mean/average is not the same as Applicants’ recited “predetermined time window”.

- measurement criteria, which may include response time, turnaround time, and so forth (col. 5, line 64 - col. 6, line 14). However, “turnaround time” is understood to be a concept that means total elapsed time, generally from the time a request is issued until a response is received. This measurement criteria is described in Brichta as being used for measuring the performance of the service or product of interest, and is therefore necessarily a time period that has already occurred – that is, the turnaround time experienced for some service/product is recorded, and is then compared to an expected turnaround time. This in no way pertains to a time window that “begins at the current time” for determining whether an anticipatory alert should be generated for a predicted performance violation.
- determining whether occurrences fall within an “upper control limit” and a “lower control limit”, in order to determine whether a system is “in control”, i.e., “stable” (col. 7, lines 38 - 49). However, the upper and lower control limits are measured in terms of standard deviations. See col. 7, lines 22 - 26, stating “... an upper control limit defined as a predetermined number of standard deviations above the mean, a lower control limit defined as a predetermined number of standard deviations below the mean ...”. These upper and lower control limits are

illustrated in **Figs. 3A - 3B**, where it can be seen that the purpose of using this type of standard-deviation-based limit is to determine whether already-detected occurrences are too far from normal (i.e., too far from the mean, or average, value), and Applicants respectfully submit that determining whether occurrences fall between such upper and lower bounds is not the same as their recited “predetermined time window that begins at a current time”.

Applicants note that the analysis presented on the last line of Paragraph 8 of the Office Action, with regard to col. 7, lines 38 - 49 of Brichta, states “performance time falling outside the fixed window”. Applicants respectfully note that their “generating an anticipatory alert ...” claim language is not directed toward evaluating “performance time”, or whether some service was performed within some particular time that measures acceptable performance, which is the scenario to which Brichta’s col. 7, lines 38 - 49 is directed. Instead, as Applicants have noted above, the term “predicted performance violation time” means the time at which a performance violation is predicted to occur. See the antecedent on lines 15 - 17 of Claim 1.

In view of the above, it can be seen that the cited references fail to disclose all of the claim elements recited in Claim 1 as currently presented. Independent Claim 1 is therefore deemed patentable. Dependent Claims 4 and 6 are therefore deemed patentable at least by virtue of the allowability of Claim 1 from which they depend.

Referring next to independent Claim 7, the claim element on lines 20 - 22, as currently

presented, recites a

generating an anticipatory alert if the predicted time [i.e., the time when the performance metric will exceed a defined threshold; see lines 18 - 19] is within a fixed time window measured from a current time at which the prediction is made.

This claim element, as previously presented, is analyzed on Page 7, lines 18 - 20 of the Office Action, which cites Brichta, col. 9, lines 11 - 15. Applicants have discussed this cited text above with regard to Claim 1, and respectfully submit that the above-presented discussion applies in an analogous manner to the “generating an anticipatory alert ...” claim language currently recited in Claim 7.

Applicants also respectfully note that Paragraph 9 of the Office Action, which discusses Claim 7, fails to provide a discussion of the “canceling ...” claim element which is recited on lines 23 - 28 of Claim 7. Accordingly, because no references have been cited for this claim element, the Office Action fails to make out a *prima facie* case of obviousness as to Claim 7.

In view of the above, it can be seen that the cited references fail to disclose all of the claim elements recited in Claim 7 as currently presented. Independent Claim 7 is therefore deemed patentable. Dependent Claim 11 is therefore deemed patentable at least by virtue of the allowability of Claim 7 from which it depends.

Referring next to independent Claim 12, the claim elements as currently presented on lines 16 - 20 and 24 - 26 have been amended to recite “... generating a prediction ...” and “an alert generator for generating an anticipatory alert ...”, respectively. Applicants note that the “an alert

generator ..." claim element as previously presented is analyzed on Page 9, lines 1 - 2 of the Office Action, citing Brichta's col. 9, lines 11 - 15. Applicants have discussed this cited text above with regard to Claim 1, and respectfully submit that the above-presented discussion applies in an analogous manner to the "an alert generator for generating an anticipatory alert ..." claim language currently recited in Claim 12.

In view of the above, it can be seen that the cited references fail to disclose all of the claim elements recited in Claim 12 as currently presented. Independent Claim 12 is therefore deemed patentable.

Referring finally to independent Claim 19, the analysis thereof in Paragraph 12 of the Office Action states that the same rationale used for rejecting Claims 1 and 7 is applicable. Applicants have amended the claim element on lines 18 - 19 of Claim 19 to clarify the recitations pertaining to the "predefined time", and respectfully submit that the above-presented discussion applies in an analogous manner to the "generate an anticipatory alert ..." claim language currently recited in Claim 19.

Accordingly, Applicants respectfully submit that independent Claim 19 is patentable for the same reasons presented above when discussing Claims 1 and 7.

In view of the above, the Examiner is respectfully requested to withdraw the §103 rejection of all remaining claims as currently presented.

IV. Conclusion

Applicants have made a sincere effort to place the claims in condition for allowance. Applicants therefore respectfully request reconsideration of the pending rejected claims, withdrawal of all presently outstanding objections and rejections, and allowance of all remaining claims at an early date. The Examiner is requested to contact the undersigned Applicants' Attorney if deemed useful to advancing the prosecution of the application.

Respectfully submitted,

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